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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,350	03/06/2002	Stefan Wilhelm	LINDE-581	7250

23599 7590 11/01/2005

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
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SUITE 1400  
ARLINGTON, VA 22201

EXAMINER
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CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/091,350

Applicant(s)

WILHELM ET AL.

Examiner

Ljiljana (Lil) V. Ciric

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) none is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-23 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 19 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is in response to the reply filed on August 19, 2005.
2. Claims 1 through 23 remain in the application, all as amended either directly or indirectly.

### ***Response to Arguments***

3. Applicant's arguments filed on August 19, 2005 have been fully considered but they are not persuasive.

For example, applicant argues that "One of ordinary [sic] in the art upon reading the claim would clearly recognize from the improvement clause of the Jepson claim that the improvement is a particular type of securing means, not the securing means used in the prior art. Prior art methods of securing heat exchange blocks are described in applicant's specification. See, for example, page 1, lines 25-26." The aforementioned arguments are not persuasive because, for example, the rejected Jepson claims in the instant application fail to recite any particular type of securing means other than the securing means used in the prior art. Furthermore, page 1, lines 25-26, merely states "The thermal insulation of the principal heat exchanger is provided by introducing the heat exchanger into a thermally insulated insulating vessel, known as a cold box, " thus failing to even mention any prior art methods of securing heat exchange blocks.

Applicant then further argues that the limitations relating to securing means in the Jepson claim preambles have been deleted and moved to the improvement part of the claims, thus rendering the previous "admission"-based rejections moot because now only "the securing means in accordance with applicants' invention" are the only securing means recited in the claims. This, too, is not found persuasive because attorney arguments cannot take the place of evidence in cases, where, for example, the

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arguments relate to allegations that the prior art was derived from the applicants. See *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965).

Applicant's arguments thus fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments thus do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

#### ***Specification***

4. Receipt and entry of the amended abstract is hereby acknowledged.

#### ***Drawings***

5. The drawings were received on August 19, 2005. These drawings are hereby approved.

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1 through 3, 6 through 10, 12 through 14, 17 through 20, and 23 are rejected under 35 U.S.C. 102(a) as being anticipated by the admitted prior art.

Base claim 1 as originally written in Jepson format recited all of the structural elements of the invention in the preamble, including: at least one heat exchanger block surrounded by an insulating vessel, pipes connected to the heat exchanger block for transporting fluids to and from the heat exchanger block, and securing means for securing the heat exchanger block hanging in the insulating vessel."

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Based on the disclosure, the securing means for securing the heat exchanger block hanging in the insulating vessel" as originally recited in the Jepson preamble and as now recited in the body of the claim is interpreted under 35 U.S.C. 112, sixth paragraph, as encompassing at least two aluminum support plates 3, a substantially triangular steel plate 4 or a steel support which is articulately connected to the aluminum plates 3 at two corners by bolts or joints 5, and a joint 7 at the third corner of the steel plate 4 which allows movement in the plane of the steel plate 4 or about an axis perpendicular to the steel plate 4, and any other disclosed equivalents thereof. Furthermore, since the claim was originally drafted in Jepson format, all of the elements of the invention originally recited in the preamble of base claim 1 and now recited in the body of the claim, including the securing means and disclosed equivalents thereof, are considered to be admitted prior art. Applicant is thus hereby advised that drafting a claim in Jepson format (i.e., the format described in 37 CFR 1.75(e); see MPEP § 608.01(m)) is taken as an implied admission that the subject matter of the preamble is the prior art work of another. Applicant's arguments have failed to obviate the latter implied admission. The functional limitations following the "wherein" clause in claim 1 are inherently met by the structural elements originally recited in the preamble of claim 1. Each of base claims 9, 12, 14, 18, 19, and 23, as well as each of the dependent claims listed above generally merely restates the admitted prior art structural elements, relying on the admitted prior art structure of claim 1 and/or on functional limitations inherent to the structure for patentability.

The previously admitted prior art thus reads on the claims.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 4, 5, 11, 15, 16, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art.

As discussed in greater detail above, the admitted prior art discloses the invention essentially as claimed, including the inventive heat exchanger as comprising "at least one heat exchanger block", which implies that plural heat exchanger blocks could be encompassed thereby. The admitted prior art, however, does not explicitly nor inherently disclose there being at least two or more such heat exchanger blocks, as recited in each of the abovementioned claims. Nevertheless, especially given that the possibility of a plurality of heat exchanger blocks being included as part of the heat exchanger, it would not be of any inventive significance to merely duplicate parts (i.e., heat exchanger blocks) without producing unexpected results thereby.

Thus it would have been obvious to one skilled in the art at the time of invention to modify the admitted prior art heat exchanger by including more than one heat exchanger block in order to increase the heat transfer area and thus to also increase the heat transfer rate through the heat exchanger.

#### *Conclusion*


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner can normally be reached on Mondays through Fridays from 10:00 a.m. to 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene, can be reached at 571-272-4930.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

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direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ljiljana (Lil) V. Ciric  
Primary Examiner  
Art Unit 3753

Approved,  
LVC 10/18/05

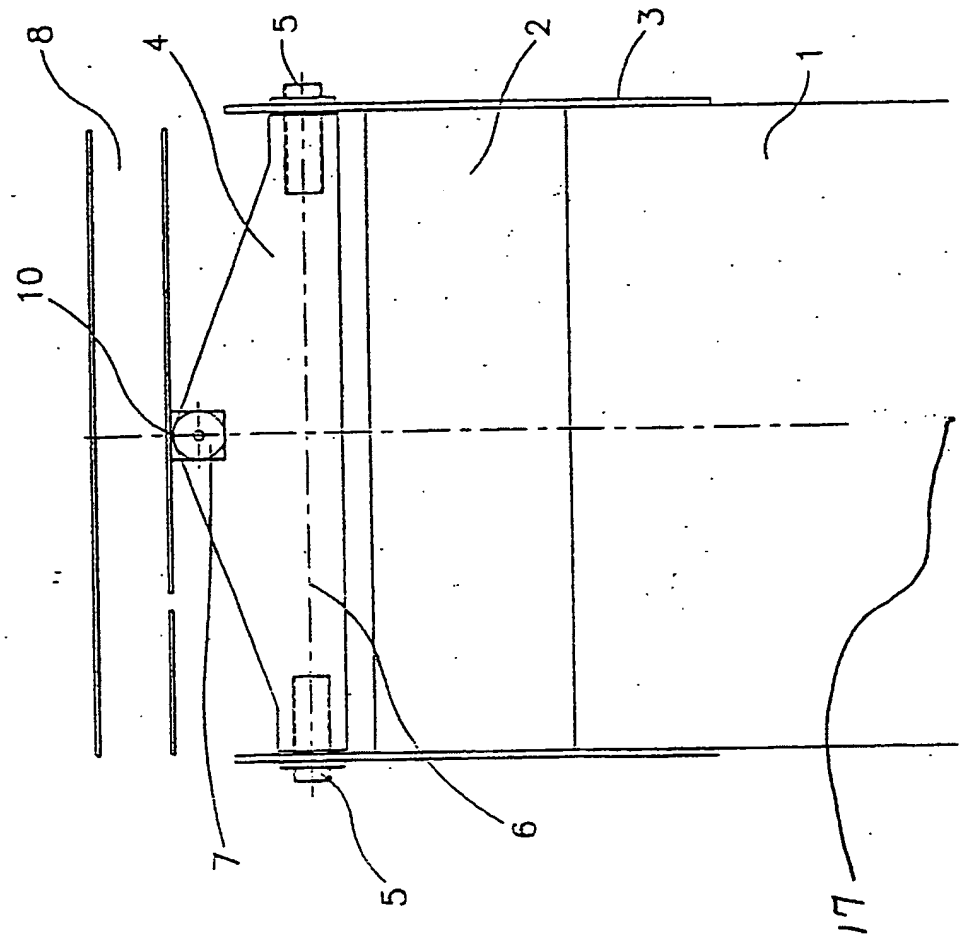
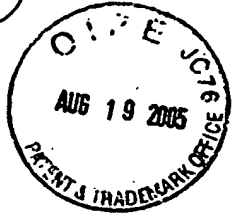


FIG. 1

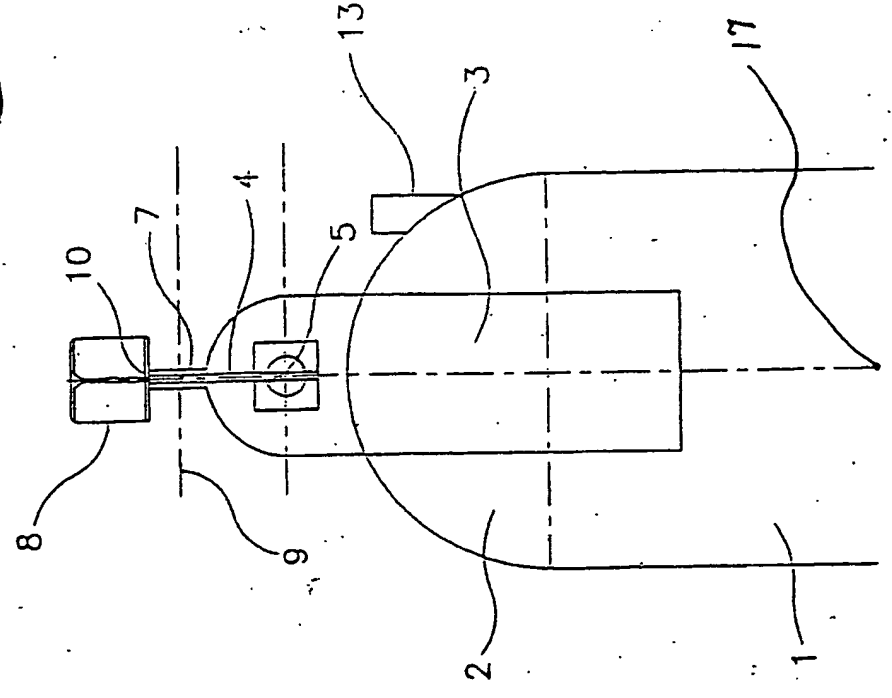


FIG. 2